

D

Abstract<sup>A</sup> OF THE DISCLOSURE

This application provides a method for mutagenesis of a gene, which comprises introducing much more point mutations into one strand of double-stranded genomic DNA of cell or organism individual than into another strand. In accordance with such a method, it is now possible to efficiently and effectively construct various useful mutants of microorganisms, cells or organism individuals. It is also now possible by analyzing the mutating conditions of the gene to clarify the mechanism of drug resistance, to estimate the occurrence of a novel insensible microorganism or to develop a drug therefor, to analyze the mutation of an oncogene and the mechanisms of cancer metastasis and increase in malignancy, to develop a therapeutic method using these mechanisms, etc.

005000:005000

PCT

世界知的所有権機関  
国際事務局

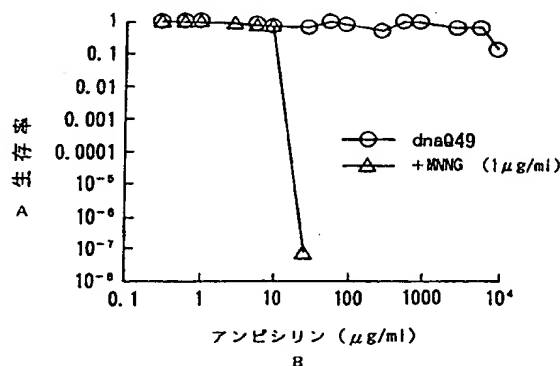
特許協力条約に基づいて公開された国際出願



(51) 国際特許分類7 C12N 15/01, 15/11, 1/21	A1	(11) 国際公開番号 WO00/28015  (43) 国際公開日 2000年5月18日(18.05.00)
(21) 国際出願番号 PCT/JP99/06294  (22) 国際出願日 1999年11月11日(11.11.99)  (30) 優先権データ 特願平10/321143 1998年11月11日(11.11.98) JP  (71) 出願人 (米国を除くすべての指定国について) 科学技術振興事業団 (JAPAN SCIENCE AND TECHNOLOGY CORPORATION) [JP/JP] 〒332-0012 埼玉県川口市本町4丁目1番8号 Saitama, (JP)  (72) 発明者; および  (75) 発明者/出願人 (米国についてののみ) 田辺清司(TANABE, Kiyoshi)[JP/JP] 〒939-0364 富山県射水郡小杉町太閤山2-1-3-307 Toyama, (JP) 古澤 満(FURUSAWA, Mitsuru)[JP/JP] 〒134-0088 東京都江戸川区西葛西6-6-8 パークファミリア605 Tokyo, (JP)	(74) 代理人 弁理士 西澤利夫(NISHIZAWA, Toshio) 〒150-0042 東京都渋谷区宇田川町37-10 麻仁ビル6階 Tokyo, (JP)  (81) 指定国 JP, US, 欧州特許 (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE)  添付公開書類 国際調査報告書	

(54) Title: MUTAGENESIS METHOD

(54) 発明の名称 突然変異誘発方法



A... SURVIVING FRACTION  
B... AMPICILLIN

## (57) Abstract

A method for introducing mutations into a gene characterized in that a larger number of point mutations are introduced into one strand of a double-stranded genomic DNA of a cell or an organism individual than into the other strand. Use of this method makes it possible to efficiently and effectively construct various useful mutants of microorganisms, cells or organism individuals. By analyzing the mutation conditions of the gene, moreover, it becomes possible to clarify the mechanism of drug tolerance, to estimate the occurrence of a novel insensible bacterium or to develop a drug therefor, to analyze the mutation of an oncogene and the mechanisms of cancer metastasis and increase in malignancy, and to develop methods for using these mechanisms.